

May 2022 (Revised November 2024)

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Subject: Fuji Battery Storage Project – Noise Assessment Memorandum

PROJECT DESCRIPTION

The Project proposes the construction and operation of a solar photovoltaic charged battery energy storage system (BESS) on 3.5 acres of property located at 3073 Newtown Road in El Dorado County, California (Project), Assessor's Parcel Number (APN) 048-280-030. The Project Site has a General Plan designation of "Commercial". The site is largely undeveloped with Highway 50 to the north, a storage yard to the west, open space/vacant land to the east, and Earth Traders Premium Landscape directly south of the site. The Project Site would be accessed from Newton Road.

Major components of the Project include battery modules mounted in racks inside of custom manufactured containers, solar photovoltaic (PV) modules mounted on fixed tilt canopy racking, PV panel support structures, inverters and transformers, an electrical collection and distribution system, approximately one acre of fencing, data monitoring equipment as well as the installation of ancillary components to enable its interconnection to the Pacific Gas and Electric (PG&E) Placerville Substation. The Project is anticipated be constructed over a three-to five- month period and is anticipated to operate for a period of up to 25 years.

NOISE ANALYSIS

Fundamentals of Sound and Environmental Noise

Addition of Decibels

The decibel (dB) scale is logarithmic, not linear; therefore, sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Under the dB scale, three sources of equal loudness together would produce an increase of 5 dB.

Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates)

at a rate of approximately 6 dB (dBA) for each doubling of distance from a stationary or point source (FHWA 2017). Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dBA for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2017). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed.

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction of 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend length-wise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the line of sight between the source and the receiver.

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (California Department of Transportation [Caltrans] 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006).

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL (Community Noise Equivalent Level) are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .

- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. and a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA), or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA noise levels, the following relationships should be noted in understanding this analysis:

1. Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
2. Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
3. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected.
4. A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

Existing Noise Environment

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn} , daytime L_{eq} , and nighttime L_{eq} , based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "*95% prediction interval [confidence interval] is on the order of +/- 10 dB.*" The majority of the Project Area would be considered ambient noise Category 5 or 6.

Table 1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical CNEL / L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or for other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62 dBA	61 dBA	54 dBA
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic compose this category.	6,384	57 dBA	55 dBA	49 dBA
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52 dBA	50 dBA	44 dBA
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47 dBA	45 dBA	39 dBA
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42 dBA	40 dBA	34 dBA

Source: The American National Standards Institute (ANSI) 2013

Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptors to the Project Site are residences located within the Golden West Mobile Park adjacent to the southeast boundary of the Project Site.

Regulatory Framework

El Dorado County General Plan Public, Health, Safety, and Noise Element

The Public Health, Safety, and Noise Element of the El Dorado County General Plan provides a basis for comprehensive local policies to control and abate environmental noise and to protect the citizens of the County from excessive noise exposure. By identifying noise-sensitive land uses and establishing compatibility guidelines for land use and noises, noise considerations will influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and mitigation can alleviate the majority of noise problems. The County defines "community regions" as areas that are appropriate for the highest intensity of self-sustaining compact urban development or suburban development. The County defines "rural centers" as areas of higher intensity development located throughout the rural areas of the County based on the availability of infrastructure, public services, existing uses, parcel size, and impacts on natural resources. The County classifies all lands not contained within the boundaries of a "community region" or a "rural center" as "rural regions". The portion of the County containing the Project Site is classified as a "rural region".

The following Public Health, Safety, and Noise Element goals are applicable to the Proposed Project:

- Policy 6.5.1.2** Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6-2 (Table 2 in this analysis) at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- Policy 6.5.1.3** Where noise mitigation measures are required to achieve the standards of Table 6-2 (Table 2 in this analysis), the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with the surroundings.
- Policy 6.5.1.7** Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6-2 (Table 2 in this analysis) for noise-sensitive uses.

Table 2. Noise Level Performance Protection Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources

Noise Level Descriptor	Daytime 7:00 a.m. – 7:00 p.m.	Evening 7:00 p.m. – 10:00 p.m.	Night 10:00 p.m. – 7:00 a.m.
	Rural	Rural	Rural
Hourly L_{eq} , dB	50	45	40
Maximum level, dB	60	55	50

Source: El Dorado County 2019

Notes:

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the Project Site.

In Community areas the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

Policy 6.5.1.11 The standards outlined in Table 6-5 (Table 3 in this analysis) shall not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally-recognized holidays. Further, the standards outlined in Table 6-5 (Table 3 in this analysis) shall not apply to public projects to alleviate traffic congestion and safety hazards.

Table 3. Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Rural Regions – Construction Noise

Noise Level Descriptor	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
All Residential	7:00 a.m. – 7:00 p.m.	50	60
	7:00 p.m. – 10:00 p.m.	45	55
	10:00 p.m. – 7:00 a.m.	40	50
Commercial, Recreation, and Public Facilities	7:00 a.m. – 7:00 p.m.	65	75
	7:00 p.m. – 7:00 a.m.	60	70
Rural Land, Natural Resources, Open Space, and Agricultural Lands	7:00 a.m. – 7:00 p.m.	65	75
	7:00 p.m. – 7:00 a.m.	60	70

Source: El Dorado County 2019

El Dorado County Municipal Code

The County's regulations with respect to noise are included in Chapter 130.37, Noise Standards, of the County Code. Section 130.37.060 outlines both transportation and non-transportation noise standards that apply to all development projects for which an acoustical analysis is required. Table 4 identifies County noise standards for non-transportation sources. Since the Project would not generate substantial amounts of traffic, County transportation noise standards are omitted.

Table 4. Noise Level Performance Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources

Noise Level Descriptor	Daytime (7 a.m. – 7 p.m.)		Evening (7 p.m. – 10 p.m.)		Night (10. p.m. – 7 a.m.)		
	Community/Rural Centers	Rural Regions	Community/Rural Centers	Rural Regions	Community/Rural Centers	Rural Regions	Community/Rural Centers
Hourly L_{eq} , dBA	55	50	50	45	45	40	
Maximum level, dB	70	60	60	55	55	50	

Source: El Dorado County 2024

El Dorado Airport Land Use Compatibility Plan

The following Noise Compatibility policies, promulgated from the El Dorado Airport Land Use Compatibility Plan, are applicable to the Project:

Policy 4.2.1. *Evaluating Noise Compatibility:* The noise compatibility of proposed land uses within the influence area of each airport addressed in this Airport Land Use Compatibility Plan (ALUCP) shall be evaluated in accordance with the policies set forth in this section together with Table 1, Noise Compatibility Criteria, and the Noise Zone Policy Map for each airport provided in Chapter 6 of the ALUCP.

(A) The criteria in Table 1, Noise Compatibility Criteria, indicate the maximum acceptable noise exposure for a range of land uses that may be proposed within the airport vicinity. Within the various noise exposure ranges, each land use type is shown as being either "normally compatible," "conditional," or "incompatible." The meaning of these terms is stated in the table and differs for indoor versus outdoor uses.

Policy 4.2.2. *Maximum Acceptable Exterior Noise Levels:* To minimize noise-sensitive development in areas exposed to significant levels of aircraft noise, new land use development shall be restricted in accordance with the following.

(A) Within the airport-related CNEL 60 dB contour, new residential development—the creation of new residential lots or increase in density on existing lots—shall be prohibited. However, a portion of a residential lot that does not contain a dwelling site may extend into the CNEL 60 dB contour. Exceptions also are provided for existing residential lots (see Policy 2.3.4).

(B) New nonresidential development shall be deemed incompatible in locations where the airport-related noise exposure would be highly disruptive to the specific land use. Applicable criteria are indicated in Table 1, Noise Compatibility Criteria [of the Compatibility Plan].

Noise Impacts

Methodology

This analysis of the existing and future noise environments is based on noise prediction modeling and empirical observations. In order to estimate the worst-case construction noise levels that may occur at the nearest noise-sensitive receptors in the Project vicinity, predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Model (2006). Operational noise levels are addressed qualitatively with reference measurements taken by ECORP Consulting, Inc. Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from the Caltrans guidelines set forth above. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby land uses.

Impact Discussion

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The significance criteria promulgated by the County's General Plan may be relied upon to make impact determinations.

Would the Project result in a generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise sensitive and may warrant unique measures for protection from intruding noise. The nearest sensitive receptors to the Project Site are residences of the Golden West Mobile Park located adjacent to the southeast boundary of the Project Site.

Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, grading and battery storage implementation).

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

As previously described, the nearest existing noise-sensitive land uses to the Project Site are residences located adjacent to the southeast boundary of the Project Site. However, it is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project site and at various distances from sensitive receptors. Therefore, this analysis employs FTA guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment from the center of the Project Site (FTA 2018), which in this case is approximately 225 feet from the property line of the mobile home park. As previously described, the County's General Plan Public Health, Safety and Noise Element Policy 6.5.1.11 states construction equipment operation is exempt from County noise standards between the hours of 7:00 a.m.

to 7:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. on weekends and holidays. It is typical to regulate construction noise in this manner since construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptor in the Project vicinity during the exempt hours in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Roadway Noise Construction Model and compared against the health-related noise level threshold established in the *Criteria for a Recommended Standard: Occupational Noise Exposure* prepared in 1998 by National Institute for Occupational Safety and Health (NIOSH). A division of the US Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

The anticipated short-term construction noise levels generated for the necessary construction equipment are presented in Table 5.

Table 5. Construction Average (dBA) Noise Levels at Nearest Receptor- Project Site

Equipment	Estimated Exterior Construction Noise Level at Nearest Residences	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation			
Rubber Tired Dozers (3)	64.6 dBA (each)	85	No
Tractors (4)	67.0 dBA (each)	85	No
Combined Site Preparation Equipment	74.2 dBA	85	No
Grading			
Crane (1)	63.7 dBA	85	No
Grader (1)	68.0 dBA	85	No
Rubber Tired Dozer (1)	64.6 dBA	85	No
Tractors (4)	67.0 dBA (each)	85	No
Combined Grading Equipment	74.2 dBA	85	No
Mechanical & Electrical Work			
Cranes (1)	59.5 dBA	85	No
Gradalls (3)	66.4 dBA (each)	85	No
Generator Sets (1)	64.6 dBA	85	No
Tractors (3)	67.0 dBA	85	No
Welders (1)	57.0 dBA	85	No
Combined Mechanical & Electrical Work	75.1 dBA	85	No
Paving			
Cement and Mortar Mixers (2)	61.8 dBA (each)	85	No
Pavers (1)	61.1 dBA	85	No
Paving Equipment (2)	69.4 dBA	85	No
Rollers (2)	59.9 dBA	85	No
Tractor (1)	67.0 dBA	85	No
Combined Paving	74.6 dBA	85	No
Architectural Coating			
Air Compressors (1)	60.6 dBA	85	No
Combined Architectural Coating	60.6 dBA	85	No

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment A for Model Data Outputs.

Notes: Construction equipment used during construction derived from the California Emission Estimator Model (CalEEMod) 2020.4.0. CalEEMod contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Site (FTA 2018), which is 225 feet from the property line of the adjacent mobile home park.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time.

As shown in Table 5, during construction activities no individual piece of construction equipment would exceed the NIOSHA threshold of 85 dBA L_{eq} at the nearest residences to the Project Site.

Operational Noise

The proposed BESS would include battery modules mounted in racks inside of custom manufactured containers, solar PV modules mounted on fixed tilt canopy racking, PV panel support structures, inverters and transformers, an electrical collection and distribution system. Though the batteries themselves generate negligible levels of noise, the inverters, transformers, and heating ventilation and air conditioning (HVAC) equipment associated with the BESS are sources of noise. On-site Project operations have been calculated using the SoundPLAN 3D noise model. The results of this model can be found in Attachment B. Table 6 shows the predicted Project noise levels at three locations in the Project vicinity, as predicted by SoundPLAN. These three locations represent the three nearest residences to the Project Site. Additionally, a noise contour graphic (see Figure 1) has been prepared to provide a visual depiction of the predicted noise levels in the Project vicinity from Project operations.

Table 6. Modeled Operational Noise Levels

Location	Modeled Operational Noise Attributed to Project (dBA L_{eq})	County Noise Standard Day/Evening/Night (dBA L_{eq})
Residence #1 to the Southeast	42.4 dBA	60 / 55 / 50
Residence #2 to the Southeast	39.4 dBA	60 / 55 / 50
Residence #3 to the Southeast	29.2 dBA	60 / 55 / 50

Source: Stationary source noise levels were modeled by ECORP Consulting using SoundPLAN 3D noise model. Refer to Attachment B for noise modeling assumptions and results.

As shown in Table 6, the modeled operational noise levels as a result of operational activities on the Project Site would not exceed the daytime, evening, or nighttime noise standards for the vicinity residential land uses when compared to the thresholds defined in the County General Plan. Also, the Project will not exceed the non-transportation noise source thresholds provided in the County's Municipal Code, as identified in Table 4 above.



Map Date: 5/24/2022
Photo (or Base) Source: SoundPLAN 2022

 **ECORP Consulting, Inc.**
ENVIRONMENTAL CONSULTANTS

Exhibit F: Noise Assessment

CUP22-0011/Fuji Battery Storage

Figure 1. Modeled Operational Noise Levels

2021-289 Fuji Battery Storage

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Would the Project Result the Generation of Excessive Groundborne Vibration or Groundborne Noise Levels?

Construction Vibration Impacts

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the proposed Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers would be necessary during Project implementation. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 7.

Table 7. Typical Construction Equipment Vibration Levels	
Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Vibratory Roller	0.210
Hoe Ram (Rock Breaker)	0.089
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: FTA 2018

The County does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating vibration generated from construction equipment, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structure of concern to the construction site, with regard to groundborne vibrations, is a large building associated with the landscape company directly south of the Project Site, located approximately 155 feet south from the Project Site center.

Based on the representative vibration levels presented for various construction equipment types in Table 7 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 8 presents the expected Project related vibration levels at a distance of 155 feet.

Table 8. Project Construction Vibration Levels at 155 Feet									
Receiver PPV Levels (in/sec) ¹							Peak Vibration	Threshold	Exceed Threshold?
Vibratory Roller	Large Bulldozer	Drilling	Loaded Trucks	Rock Breaker	Jack-hammer	Small Bulldozer			
0.013	0.005	0.005	0.004	0.05	0.002	0.000	0.013	0.02	No

¹Based on the Vibration Source Levels of Construction Equipment included on Table 2 (FTA 2018).

As shown, vibration as a result of construction activities would not exceed 0.2 PPV at the nearest structure. Thus, Project construction would not exceed the recommended threshold.

Operational Vibration Impacts

Project operations would not include the use of any stationary equipment that would result in excessive groundborne vibration levels. Therefore, the Project would result in no groundborne vibration impacts during operations.

Would the Project Expose People Residing or Working in the Project Area to Excessive Airport Noise Levels?

The Placerville Airport is located less than one mile (4,983 feet) southwest of the Project Site. As shown on the Placerville Airport Land Use Compatibility Plan *Airport Noise Zones Policy Map* (El Dorado 2012), the Proposed Project lies just outside of the 55-60 dBA CNEL contour lines, and inside the Airport Influence Area contour line. According to the APLUCP's policies described previously, land uses proposed for development that fall within the Airport Influence Area are subject to policies 4.2.2 and 4.2.3. Policy 4.2.2 addresses new nonresidential development in locations where the airport-related exterior noise exposure would be highly disruptive to the specific land use, and Policy 4.2.3 limits the development of land uses that would experience aircraft-related interior noise levels that could cause disruption to activities associated with the specific land use. However, as stated above, the Project Site lies outside of the CNEL contour lines associated with aircraft-related noise levels that would exceed interior/exterior levels that could cause disruption to the specific land use, and therefore would not expose people working during construction or maintaining the facility to excessive airport noise.

REFERENCES

Caltrans (California Department of Transportation). 2002. California Airport Land Use Planning Handbook.

_____. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.

_____. 2020. Transportation- and Construction-Induced Vibration Guidance Manual.

El Dorado County. 2024. El Dorado County Municipal Code.

_____. 2019. El Dorado County General Plan Public Health, Safety, and Noise Element.

FHWA (Federal Highway Administration). 2006. Roadway Construction Noise Model.

_____. 2011. *Effective Noise Control During Nighttime Construction*.
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_____. 2017. *Construction Noise Handbook*.
https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook02.cfm.

FTA (Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment.

Harris Miller, Miller & Hanson Inc. 2006. Transit Noise and Vibration Impact Assessment, Final Report.

Western Electro-Acoustic Laboratory, Inc. 2000. Sound Transmission Sound Test Laboratory Report No. TL 96-186.

ATTACHMENT A

Federal Highway Administration Highway Roadway Construction Noise Model – Project
Construction Noise

Report date: 5/9/2022

Case Description: Site Preparation

Description	Affected Land Use
Site Preparation	Residential

Description	Equipment						
	Impact	Device	Spec	Actual	Receptor	Estimated	
			Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer	No		40		81.7	225	0
Dozer	No		40		81.7	225	0
Dozer	No		40		81.7	225	0
Tractor	No		40	84		225	0
Tractor	No		40	84		225	0
Tractor	No		40	84		225	0
Tractor	No		40	84		225	0

Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	68.6	64.6
Dozer	68.6	64.6
Dozer	68.6	64.6
Tractor	70.9	67
Total	70.9	74.6

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022
Case Description: **Grading**

Description **Affected Land Use**
 Grading Residential

Description	Equipment				
	Impact	Device	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)
Excavator	No	40		80.7	225
Grader	No	40	85		225
Dozer	No	40		81.7	225
Tractor	No	40	84		225
Tractor	No	40	84		225
Tractor	No	40	84		225

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	67.6	63.7
Grader	71.9	68
Dozer	68.6	64.6
Tractor	70.9	67
Tractor	70.9	67
Tractor	70.9	67
Total	71.9	74.2

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),

Report date: 5/9/2022
Case Description: Mechanical & Electrical Work

Description	Land Use
Mechanical & Electrical Work	Residential

Description	Equipment				
	Impact		Spec	Actual	Receptor
	Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)
Crane	No	16		80.6	225
Gradall	No	40		83.4	225
Gradall	No	40		83.4	225
Gradall	No	40		83.4	225
Generator	No	50		80.6	225
Tractor	No	40	84		225
Tractor	No	40	84		225
Tractor	No	40	84		225
Welder / Torch	No	40		74	225

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	67.5	59.5
Gradall	70.3	66.4
Gradall	70.3	66.4
Gradall	70.3	66.4
Generator	67.6	64.6
Tractor	70.9	67
Tractor	70.9	67
Tractor	70.9	67
Welder / Torch	60.9	57
Total	70.9	75.1

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022
Case Description: **Paving**

Description **Land Use**
Paving Residential

Description	Impact	Equipment				Estimated Shielding (dBA)
		Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	
Concrete Mixer Truck	No		40		78.8	225
Concrete Mixer Truck	No		40		78.8	225
Paver	No		50		77.2	225
Pavement Scarafier	No		20		89.5	225
Pavement Scarafier	No		20		89.5	225
Roller	No		20		80	225
Roller	No		20		80	225
Tractor	No		40	84		225

Calculated (dBA)

Equipment	*Lmax	Leq
Concrete Mixer Truck	65.7	61.8
Concrete Mixer Truck	65.7	61.8
Paver	64.2	61.1
Pavement Scarafier	76.4	69.4
Pavement Scarafier	76.4	69.4
Roller	66.9	59.9
Roller	66.9	59.9
Tractor	70.9	67
Total	76.4	74.6

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022
Case Description: Architectural Coating

Description **Land Use**
Architectural Coating Residential

Description	Impact	Equipment				Receptor Distance (feet)	Estimated Shielding (dBA)
		Spec	Actual	Receptor			
		Device	Usage(%)	Lmax (dBA)			
Compressor (air)	No	40	77.7	225	0		

Calculated (dBA)

Equipment	*Lmax	Leq
Compressor (air)	64.6	60.6
Total	64.6	60.6

*Calculated Lmax is the Loudest value.

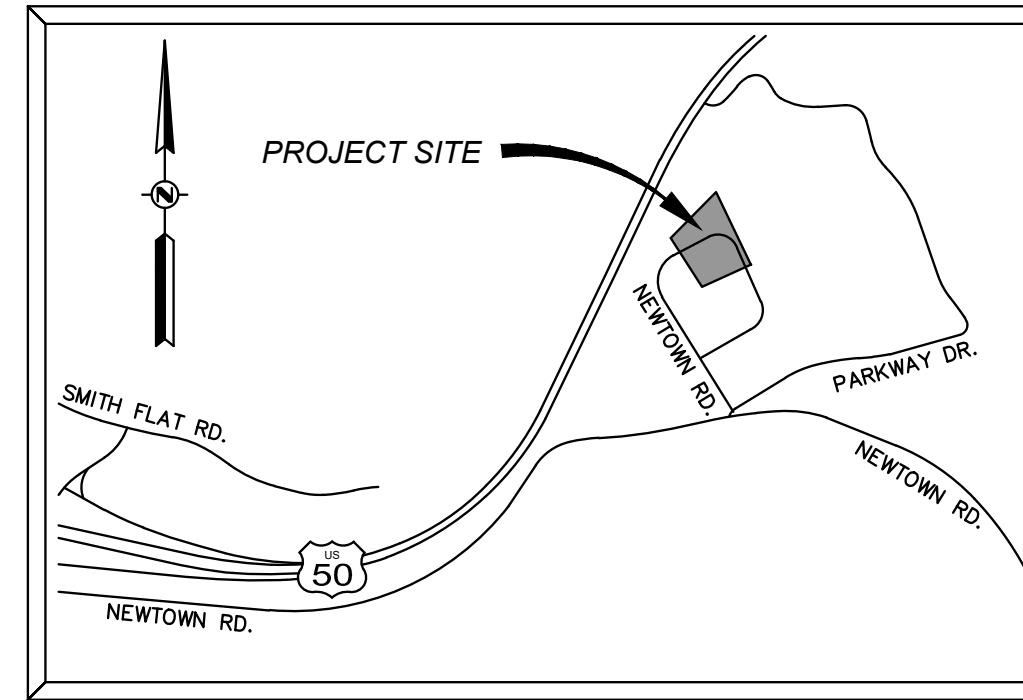
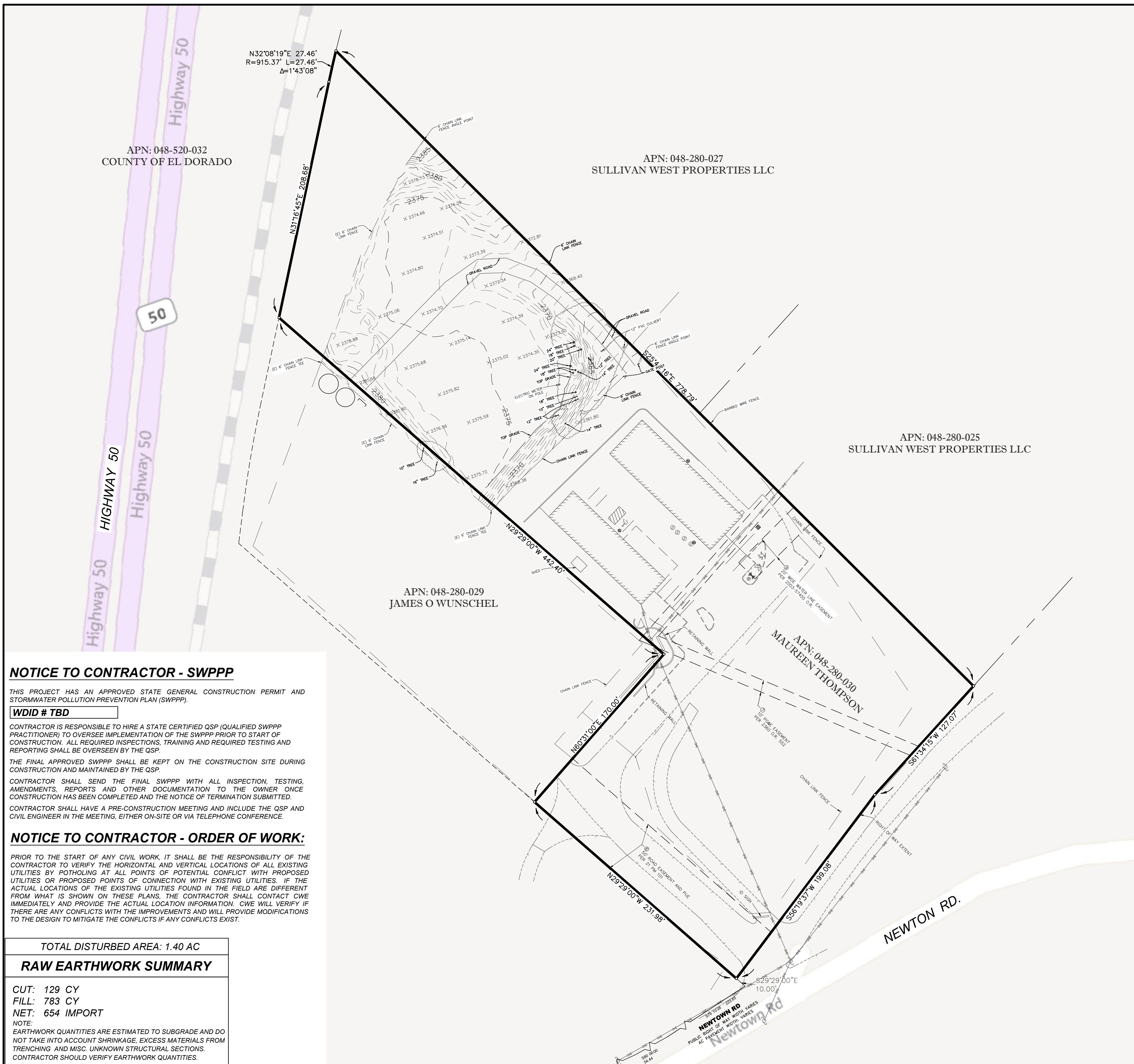
ATTACHMENT B

SoundPLAN Outputs – Onsite Project Noise

SoundPLAN
Output Source Information

Number	Receiver Name	Location	Level at Ground Floor
1	Residential	Residential to the Southeast of the Project Site	42.4 dBA
2	Residential	Residential to the Southeast of the Project Site	39.4 dBA
3	Residential	Residential to the Southeast of the Project Site	29.2 dBA
Number	Noise Source Information	Citation	Level at Source
1	internal circulation/ parking lot & shop activity	City of Santa Paula. 2017. <i>Santa Paula Battery Energy Storage System Draft Initial Study - Mitigated Negative Declaration. Project NO. 16-CUP-06</i>	73.0 dBA

Exhibit F: Noise Assessment
CUP22-0011/Fuji Battery Storage



VICINITY MAP

NOT TO SCALE

SHEET INDEX:

- C1 EXISTING CONDITIONS**
- C2 GRADING AND DRAINAGE PLAN**
- C3 CONSTRUCTION BMP PLAN**
- C4 CONSTRUCTION AND EROSION CONTROL DETAILS**

BASIS OF BEARINGS:

THE SOUTH EASTERLY LINE OF PARCEL B, BEING N56°19'37"E, AS SHOWN ON THAT CERTAIN MAP FILED FOR RECORD INBOOK 21 OF PARCEL MAPS, PAGE 101, RECORDS OF PLACER COUNTY WAS USED AS THE BASIS OF BEARINGS AS SHOWN AND STATED ON THE ALTA SURVEY PERFORMED BY BY MATT RUSSEL, LS9010, SLOOTEN CONSULTING, INC.

BENCHMARK:

THE ELEVATIONS ON THIS SITE WERE BASED ON AN ASSUMED DATUM BASED ON GOOGLE MAPS

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRIZE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

NOTICE TO CONTRACTOR - ORDER OF WORK:

PRIOR TO THE START OF ANY CIVIL WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES BY POTHOLING AT ALL POINTS OF POTENTIAL CONFLICT WITH PROPOSED UTILITIES OR PROPOSED POINTS OF CONNECTION WITH EXISTING UTILITIES. IF THE ACTUAL LOCATIONS OF THE EXISTING UTILITIES FOUND IN THE FIELD ARE DIFFERENT FROM WHAT IS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT CWE IMMEDIATELY AND PROVIDE THE ACTUAL LOCATION INFORMATION. RFE ENGINEERING WILL VERIFY IF THERE ARE ANY CONFLICTS WITH THE IMPROVEMENTS AND WILL PROVIDE MODIFICATIONS TO THE DESIGN TO MITIGATE THE CONFLICTS IF ANY CONFLICTS EXIST.

FLOOD PLAIN:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE "UNSHADED X" OF FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 0617C0800E, WHICH BEARS AN EFFECTIVE DATE OF 09/26/2008 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEY WAS PERFORMED TO

ZONING:

1147-1152 (2004)

SOIL TYPE:

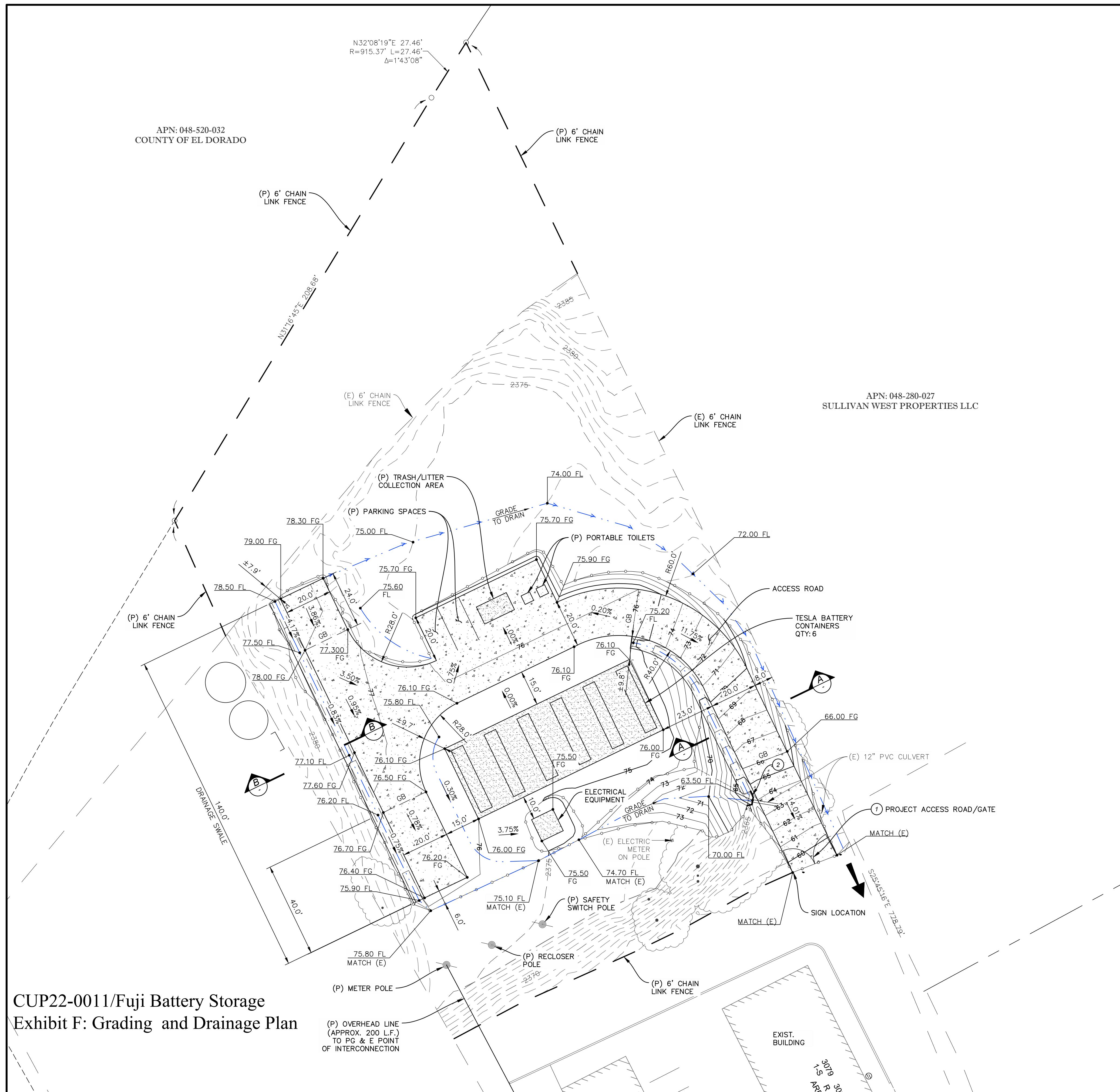


**Know what's below.
Call before you dig.
or (800) 227-2600**

FUJI BATTERY STORAGE
EL DORADO COUNTY, CA
APN: 048-280-029-000

EXISTING CONDITIONS

PROJECT R23001 = ELLIOTT DORADO COUNTY



LEGEND:

3" AC / 8" CLASS 2AB		(P) INTERMEDIATE CONTOURS		APPRV'D
6" CLASS 2AB		(P) INDEX CONTOUR		BY
CONCRETE		(E) INTERMEDIATE CONTOURS		DATE
FLOWLINE ELEVATION	13.34 FL	(E) INDEX CONTOUR		REV. NO.
MATCH (E) GRADE ELEVATION	13.61 FG	(P) FENCE LINE		REVISION
MATCH (E)		(E) FENCE LINE		2
FINISH GRADE ELEVATION	13.34 FG	(P) FLOW PATH		1
PROPOSED UTILITY POLE		DAYLIGHT LINE		0
SURFACE FLOW CHANNEL FLOW				ORIGINAL SCALE IS IN INCHES
OVERLAND RELEASE				

CONSTRUCTION KEYNOTES:

- ① PLACE NEW 20' WIDE GATE
- ② EXTEND 12" STORM DRAIN PIPE AND OUTFALL BEYOND DAYLIGHT OF NEW ROAD
INSTALL NEW OPI STEEL INLET PER CALTRANS STD. D95A

GENERAL GRADING AND DRAINAGE NOTES:

1. ALL VALVES, MANHOLES, CLEANOUTS, DI'S, PULLBOXES, ETC. WITHIN LIMITS OF CONSTRUCTION TO BE ADJUSTED TO FINISH GRADE AS NEEDED.
2. GRADING AND PAVING SHALL BE IN ACCORDANCE WITH PROJECT GEOTECHNICAL REPORT.
3. VERIFY ALL UTILITY LOCATIONS, PIPE ELEVATIONS, ETC. PRIOR TO CONSTRUCTION.
4. SITE LIGHT LOCATIONS SHOWN FOR REFERENCE ONLY. VERIFY LOCATIONS WITH SITE ELECTRICAL PLANS.
5. ADD 2300 TO PROPOSED FINISHED GRADE AND FLOW LINE ELEVATION TO MATCH VERTICAL DATUM.
6. SCARIFY MINIMUM 12" BELOW SUBGRADE AND COMPACT TO 90% MIN. RELATIVE COMPACTION (FOR AB & CONCRETE SLABS)

SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE

FUJI BATTERY STORAGE
EL DORADO COUNTY, CA
APN: 048-280-029-000

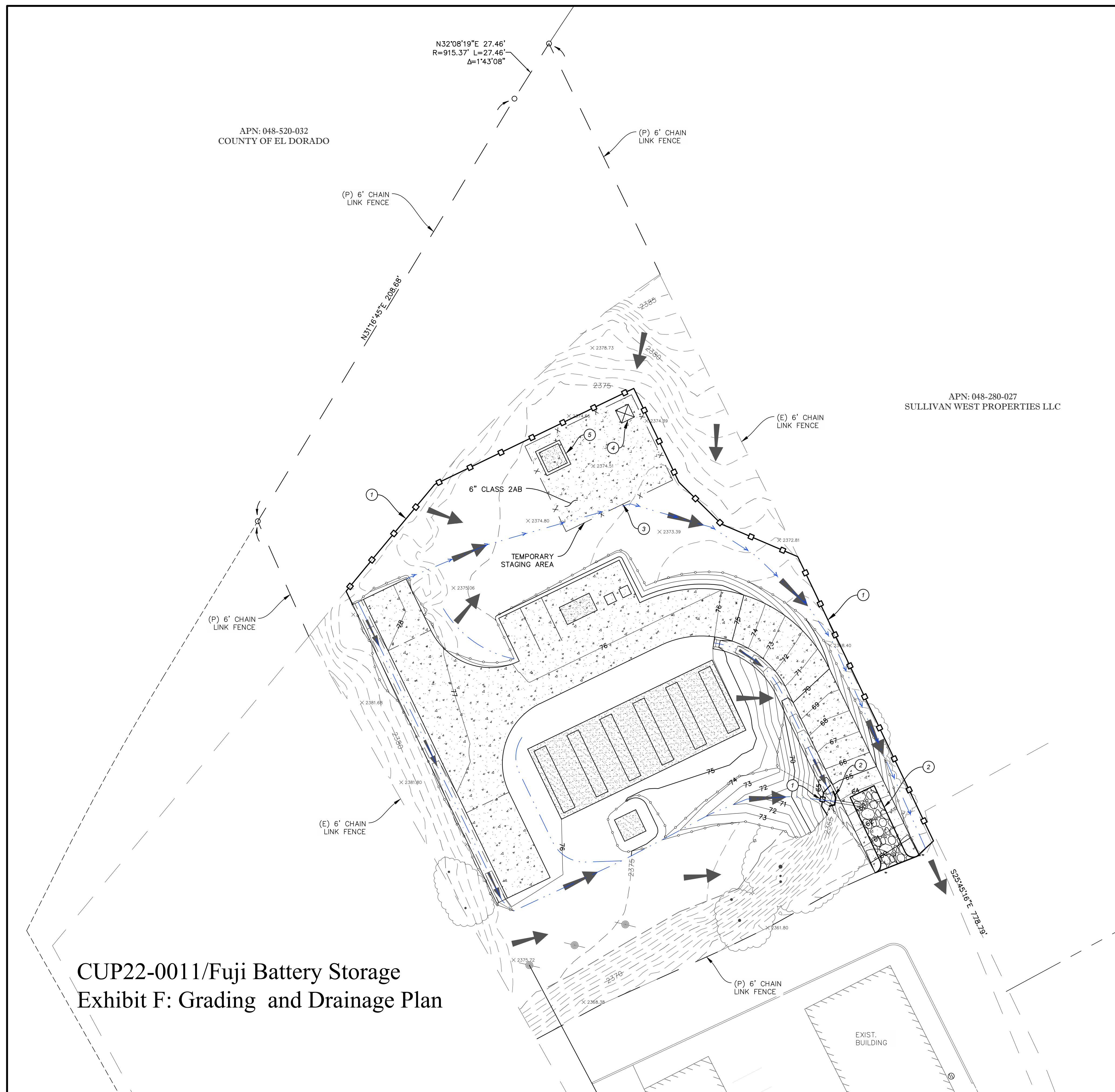
GLOBAL
604 SUTTER ST, SUITE 250
FOLSOM, CA 95630
(916) 985-9461

GRADING & DRAINAGE PLAN

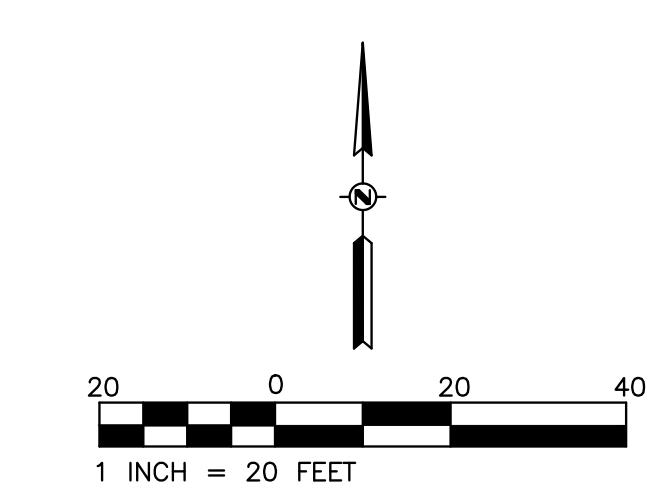
811
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Sheet C2 of 4
03/10/2022

CUP22-0011/Fuji Battery Storage Exhibit G: Grading and Drainage Plan



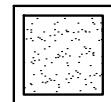
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LEGEND:

TEMPORARY STAGING AREA FENCE 

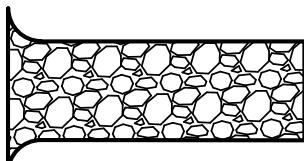
FIBER ROLL 

CONCRETE WASHOUT 

PORTABLE TOILET 

OVERLAND RELEASE 

CHANNEL FLOW 

TEMPORARY CONSTRUCTION SITE ENTRANCE/EXIT 

CONSTRUCTION KEYNOTES:

- ① PLACE FIBER ROLL PER DETAIL 1, SHEET C4. REF. CASQA BMP SE-5.
- ② CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE / EXIT PER DETAIL 2, SHEET C4. REF. CASQA BMP TC-1.
- ③ STAGING AREA, MATERIAL STORAGE, TEMPORARY STOCKPILE STORAGE AREA, FUELING AREA.
- ④ PLACE PORTABLE TOILET(S) FOR USE DURING CONSTRUCTION. LOCATE 50' MIN FROM STORM DRAIN INLETS AND ANCHOR TO PREVENT OVERTURNING.
- ⑤ CONSTRUCT CONCRETE WASHOUT PER DETAIL 3, SHEET C4 (OR USE APPROVED EQUIVALENT). REF. CASQA BMP WM-8.

NOTE:
CONTRACTOR TO DETERMINE SPECIFIC LOCATIONS AND BMPS EMPLOYED FOR EROSION AND SEDIMENT CONTROL, EITHER NOT SHOWN ON PLAN OR IN ADDITION TO PLAN (AS NEEDED). HYDROSEEDING (PER CASQA MANUAL) OF PERMANENTLY EXPOSED SOIL AND EROSION CONTROL BLANKETS TO BE USED IN COMBINATION (AS REQUIRED) DURING CONSTRUCTION TO PREVENT EROSION.

CUP22-0011/Fuji Battery Storage Exhibit G: Grading and Drainage Plan

EROSION AND SEDIMENT CONTROL NOTES:

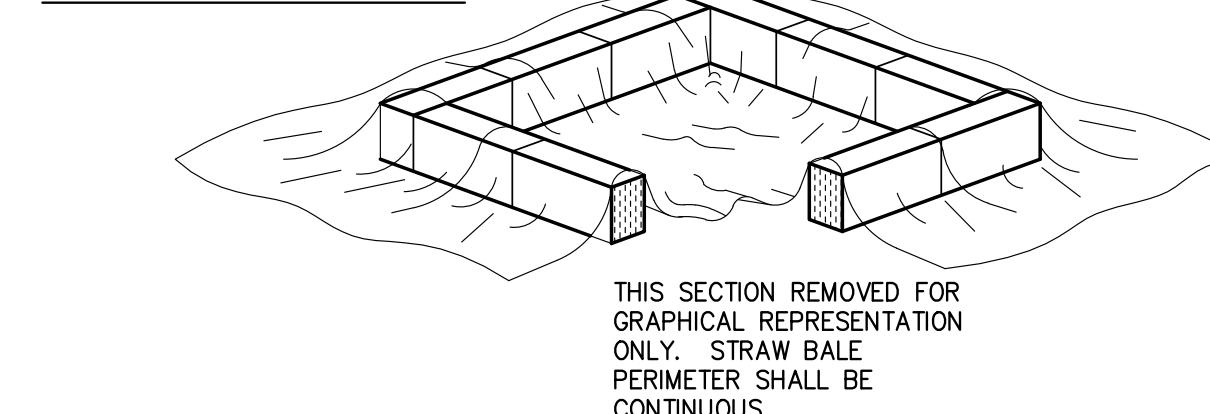
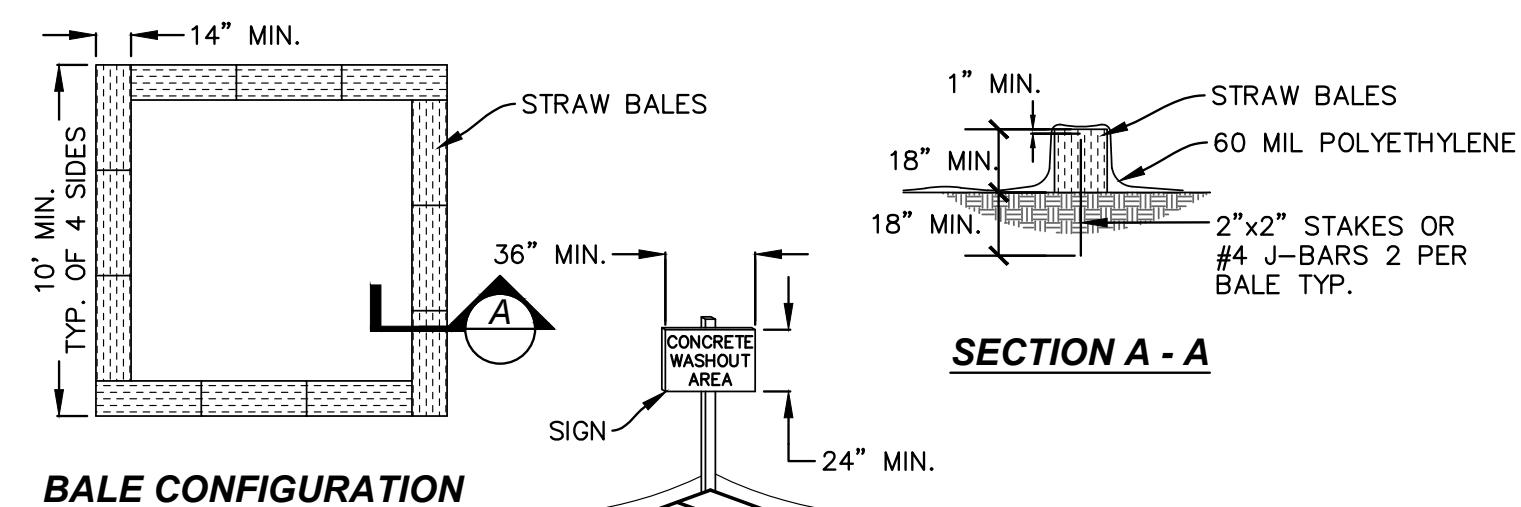
- THE CONTRACTOR SHALL FOLLOW ALL JURISDICTIONAL GUIDELINES FOR GRADING AND THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN OR STATED ON THESE PLANS.
- CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM. CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN PLACE FOR THE WINTER MONTHS PRIOR TO OCTOBER 1.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF THE DEPARTMENT OF UTILITIES.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF THE DEPARTMENT OF UTILITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPs, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPs OR EROSION AND SEDIMENT CONTROL PLAN.
- IN AREAS WHERE SOIL WILL BE EXPOSED LONGER THAN 14 DAYS, CONTRACTOR SHALL STABILIZE EXPOSED SOILS WITH HYDROSEEDING OR OTHER EQUIVALENT METHOD. CONTRACTOR SHALL ENSURE NO AREAS WILL BE LEFT EXPOSED OVER THE WINTER SEASON.
- THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE. THE STABILIZED CONSTRUCTION ENTRANCE SHALL REMAIN IN PLACE UNTIL THE ROAD BASE ROCK COURSE IS COMPLETED.
- ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEEP AT THE END OF EACH WORKING DAY OR AS NECESSARY.
- CONTRACTOR SHALL PLACE GRAVEL BAG BARRIERS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL BAG BARRIERS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
- SOIL STOCKPILE SHALL BE SURROUNDED BY STRAW WATTLE. CONTRACTOR SHALL COVER STOCKPILE WHEN NOT IN USE.

PHASE OF CONSTRUCTION	(WET SEASON)				(WET AND DRY SEASON)							
	HYDRO-SEEDING	STRAW MULCHING & TACKIFIER	PRESERVATION OF EXISTING VEGETATION	SOIL BINDERS	FIBER ROLLS	OUTLET PROTECTION	STORM DRAIN INLET PROTECTION	DEWATERING	STABILIZED CONSTRUCTION ENTRANCE	MATERIAL & WASTE DISPOSAL LOCATION	CONCRETE WASHOUT	DUST CONTROL
PRE-GRADING		●		●		●			●	●	●	●
CUT AND FILL QUANTITIES	●	●		●			●			●	●	●
UNDERGROUND WORK											●	
STORM DRAIN IMPROVEMENTS					●					●	●	
CURB & GUTTER							●				●	
STREET IMPROVEMENTS					●						●	
POST CONSTRUCTION	●	●	●									

NOTES:

1. ALL EROSION BMPs SHALL BE IN PLACE PRIOR TO STORM EVENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF SECTION II OF THE IMPROVEMENT STANDARDS AND THE CALIFORNIA STORM WATER HANDBOOK.

2. MAINTAIN BMPs AS NECESSARY.

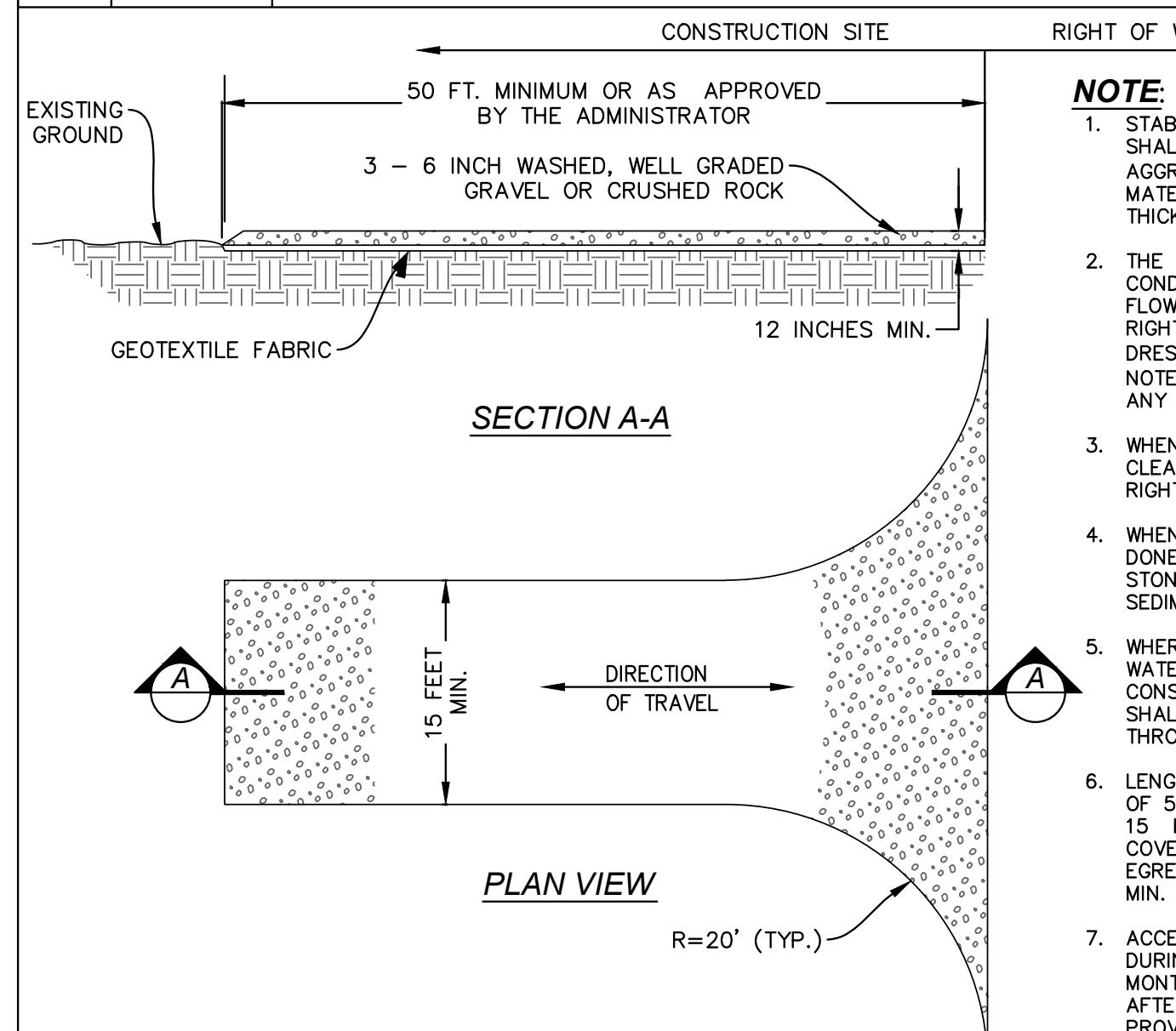


THIS SECTION REMOVED FOR GRAPHICAL REPRESENTATION ONLY. STRAW BALE PERIMETER SHALL BE CONTINUOUS.

NOTES:

- FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT.
- CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES.

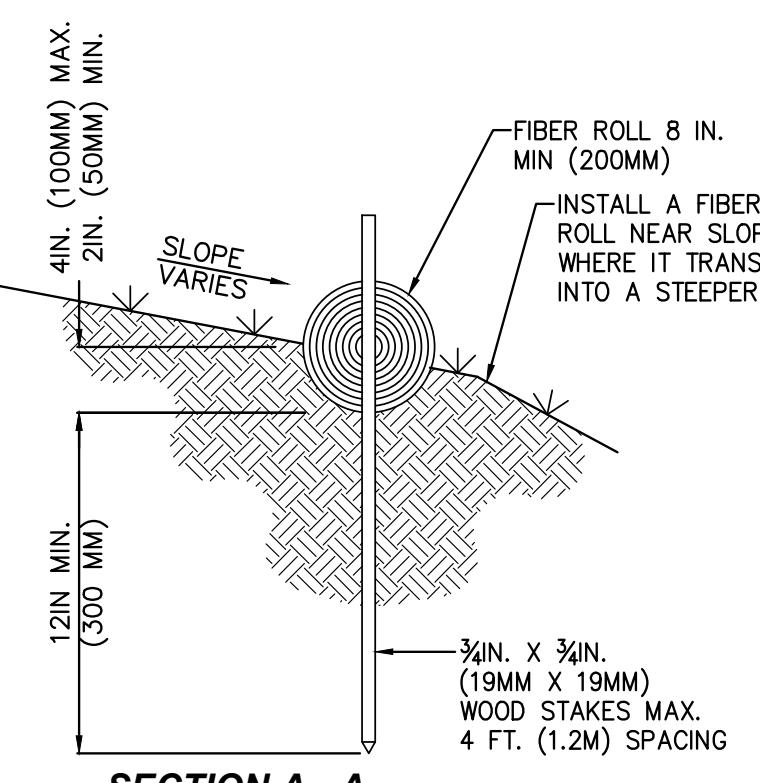
3 NTS CONCRETE WASHOUT



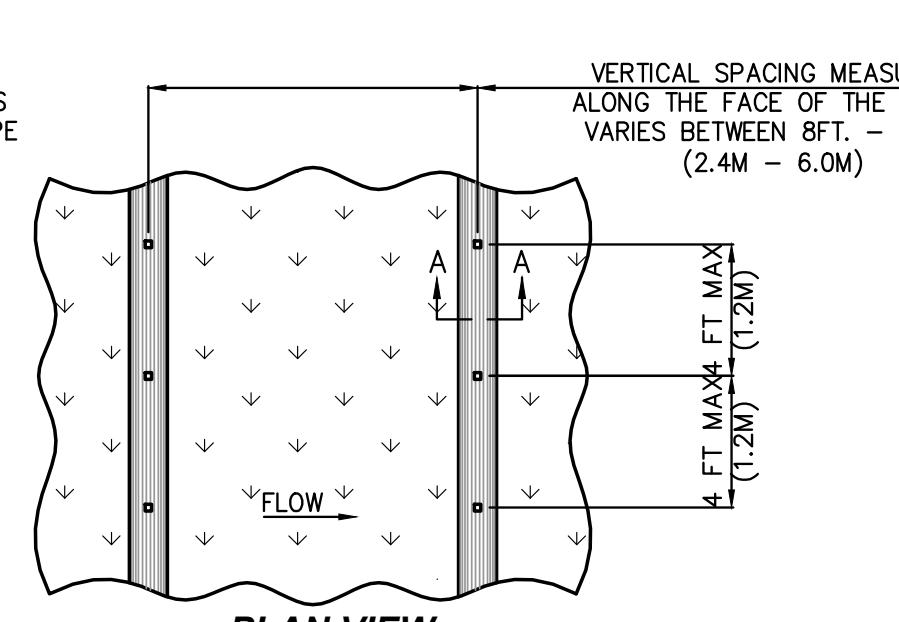
NOTE:

- STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF CRUSHED AGGREGATE (WASHED) BETWEEN 3-6 INCHES. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12 INCHES.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING WITH MATERIAL (AS SPECIFIED IN NOTE 1), REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
- LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MINIMUM OF 15 FEET OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDED, AMple TURNING RADIi, MIN. 20-FOOT RADIUS.
- ACCESES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONITORING DURING NORMAL USE, AND AFTER EACH RAINFALL. WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

2 NTS CONSTRUCTION ENTRANCE



SECTION A-A



PLAN VIEW

1 NTS FIBER ROLL

APPROVED	DATE	BY
REVISION	CHECK NO.	BY
DESIGN	AEB	TSM
DRAWN	AEB	TSM
QUANT.		
ORIGINAL SCALE IS IN INCHES	2	

REGISTERED PROFESSIONAL ENGINEER
ROBERT F. EYER, PE
No. C040666
Exp. 3-31-2025
CIVIL
STATE OF CALIFORNIA

CW=

2800 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-8000 | www.RFEEngineering.com

604 SUITE 250
FUJI BATTERY STORAGE
EL DORADO COUNTY, CA
APN: 048-280-020-000
CONSTRUCTION & EROSION
CONTROL DETAILS
Sheet C4
4 of 4
03/02/2022

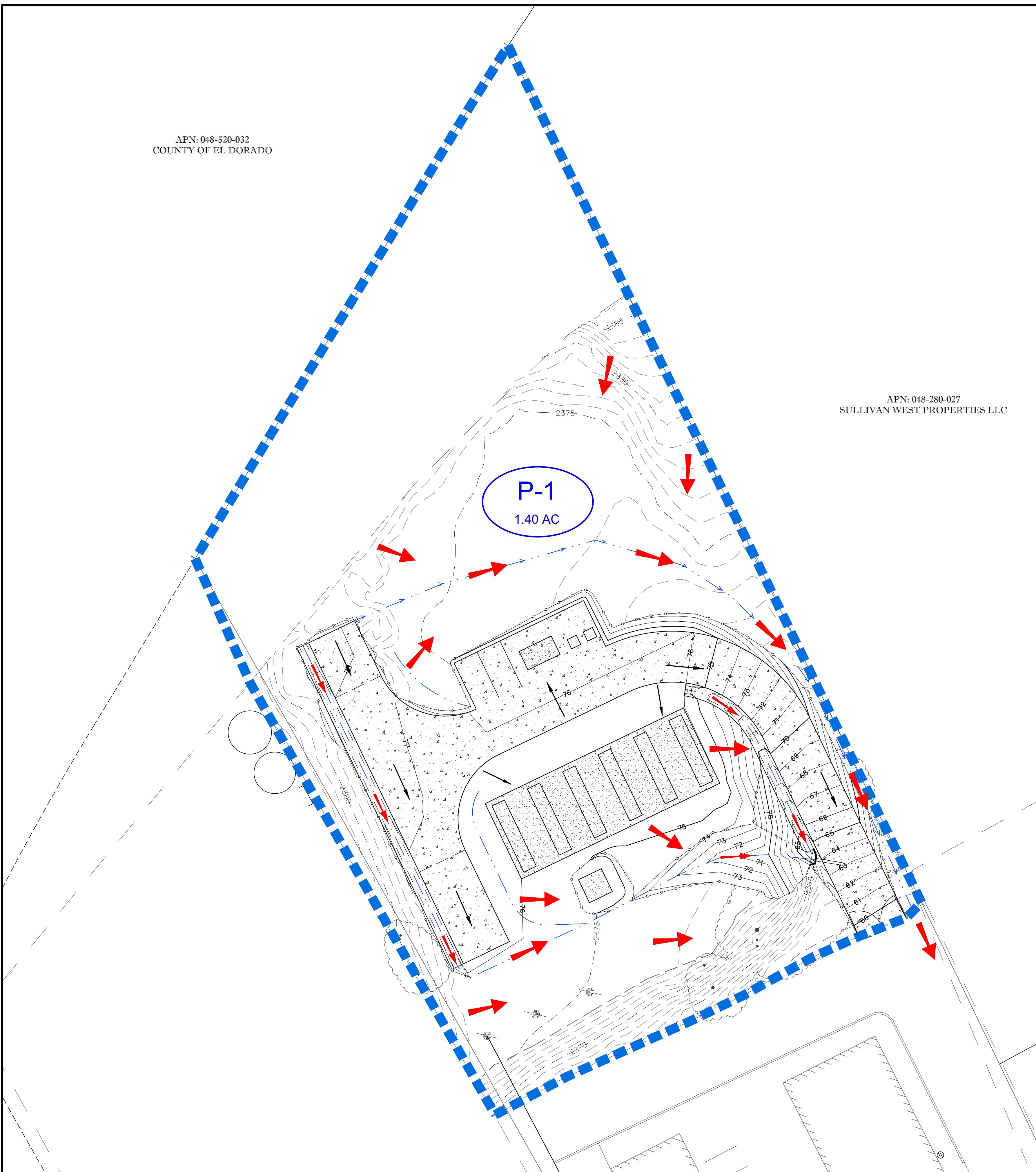
CUP22-0011/Fuji Battery Storage
Exhibit F: Grading and Drainage Plan

CUP22-0011/Fuji Battery Storage Exhibit G: Grading and Drainage Plan

FUJI BATTERY STORAGE

PROPOSED CONDITIONS SHED MAP

APN: 048-520-032
COUNTY OF EL DORADO



LEGEND

DRAINAGE AREA
DESIGNATIONS & AREA



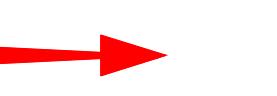
DRAINAGE AREA BOUNDARY



OVERLAND RELEASE



CHANNEL FLOW



SURFACE FLOW



(P) FLOW PATH



POST-CONSTRUCTION SHED AREAS (ACRES)

SHED	IMPERVIOUS	PERVIOUS	TOTAL	% IMPERVIOUS
P-1	0.33	1.07	1.40	24
TOTAL	0.33	1.07	1.40	24

FUJI BATTERY STORAGE 3073 NEWTOWN RD PLACERVILLE, CA PROPOSED CONDITIONS		Sheet SM2	2 of 2	03/10/2023
ZGLOBAL 604 SUTTER ST SUITE 250 FOLSOM, CA 95630 (916) 985-9461		PROJECT R23001 - FUJI; EL DORADO COUNTY		
<p>2260 Quailfield Blvd, Suite 100, Sacramento, CA 95861 Ph: 916.777.2780 Fax: 916.777.2781 www.cwecorp.com</p>				
<p>1 INCH = 20 FEET</p>				

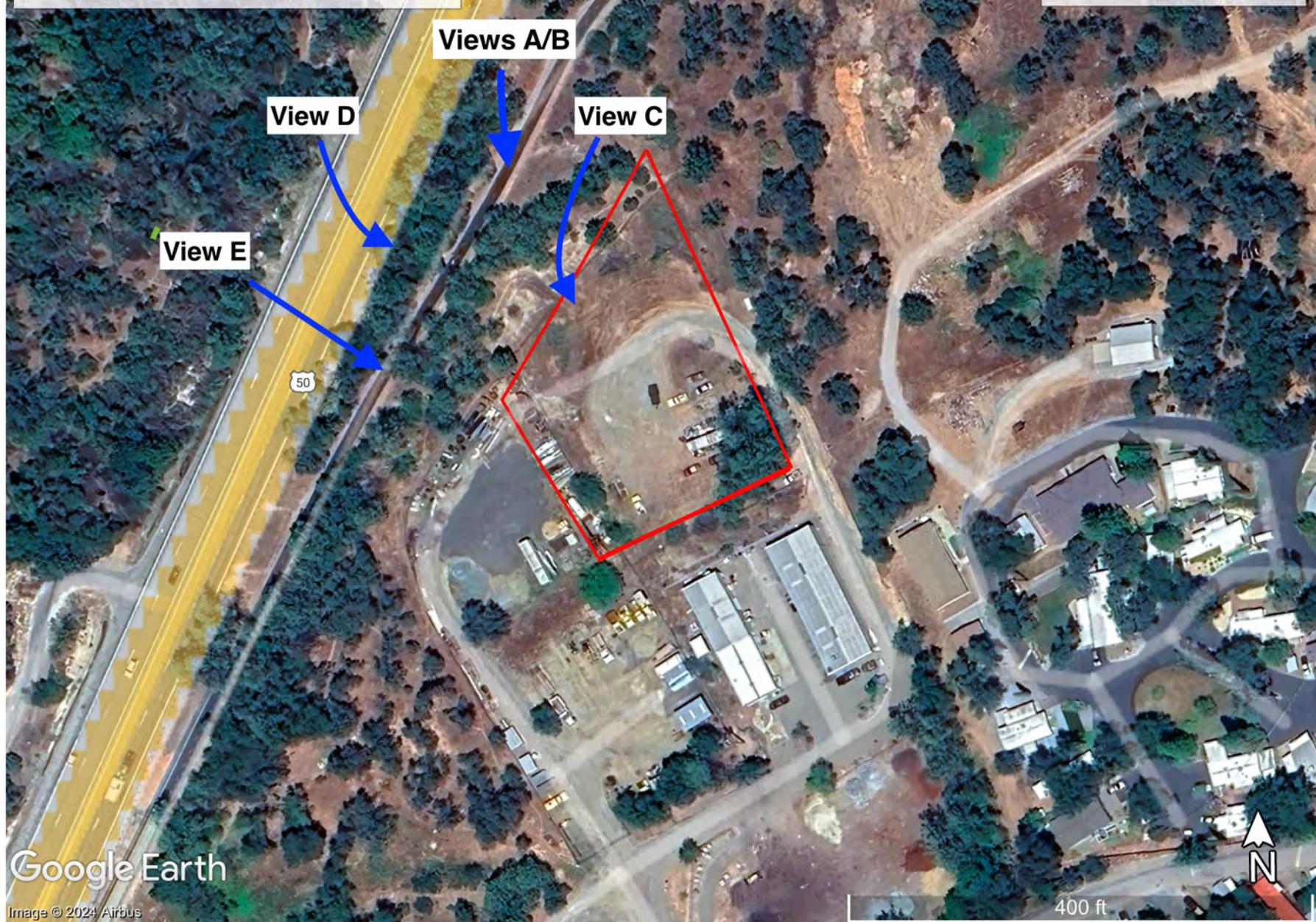
CUP22-0011/Fuji Battery Storage
Exhibit F: Grading and Drainage Plan

Fuji Battery Storage Project

Photographic View Locations

Legend

Fuji 048-280-030-000



Fuji Battery

View A: Existing



Fuji Battery

View A: Proposed



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation

Fuji Battery

View B: Existing



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation

Fuji Battery

View B: Proposed



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation

Fuji Battery

View C: Existing



Fuji Battery

View C: Proposed Project





CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation

Fuji Battery

View E





ResidentialRendering.com

CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation

VISUAL IMPACT ASSESSMENT

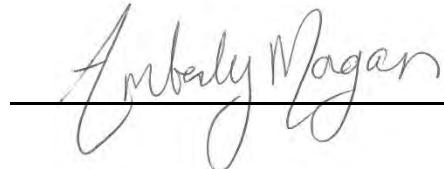
Fuji Battery Storage Facility

VIA Memorandum

October 2024

El Dorado County CA

Prepared by:



Date: October 8 2024

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ECRP Environmental Consulting
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1 Introduction

1.1 Purpose of Report and Assessment Methodology

The purpose of this visual impact assessment VIA memorandum is to document potential visual change in the Area of Visual Effect AVE. This memorandum follows the guidance outlined in the publication *Guidelines for the Visual Impact Assessment of Highway Projects* published by the Federal Highway Administration FHWA in January 2015. The formatting of this template is aligned with the directions and examples included in the *Caltrans 2023 VIA Handbook* available at: [Visual Impact Assessment VIA for Projects on State Highway System Caltrans](#)

2 Establishment Phase

2.1 Project Location and Setting

The project location and setting provide the context for determining the type of changes to the existing visual environment. The proposed project is located on an approximately 1-acre portion of the parcel located at 3073 Nesson Road Placerille El Dorado County California. The project area corresponds to a portion of Section 10 Township 10 North and Range 11 East Mount Diablo Base and Meridian within the Camino California 7.5-minute quadrangle Figure 1: Project Location and Vicinity.

The parcel is characterized by highly disturbed industrial uses with large warehouse type buildings paved areas gravel storage/storage piles natural stone stacks for resale small office buildings and truck parking. The lot slopes to the south from Highway 50 and north from Nesson Road. The area between Highway 50 and the parcel is heavily covered with trees and natural vegetation. The site itself has been mostly cleared with a few remaining trees towards the center near the two office buildings.

2.2 Project Description

The project proposes the construction of a battery energy storage system BESS facility and security fence within the northern portion of the existing parcel. The BESS will consist of up to 5 megawatt alternating current over a 4-hour period for a total energy reservoir of 20 megawatt hours. The storage system will consist of seven battery storage containers each situated within an enclosure measuring 23 feet long by 5 feet wide and 8 feet tall. Power to the enclosures will be provided by connecting to an onsite service station transformer with connection lines installed above and below ground. Figure 2: Site layout. The facility will be decommissioned after 30 years and the land will be returned to pre-project conditions.

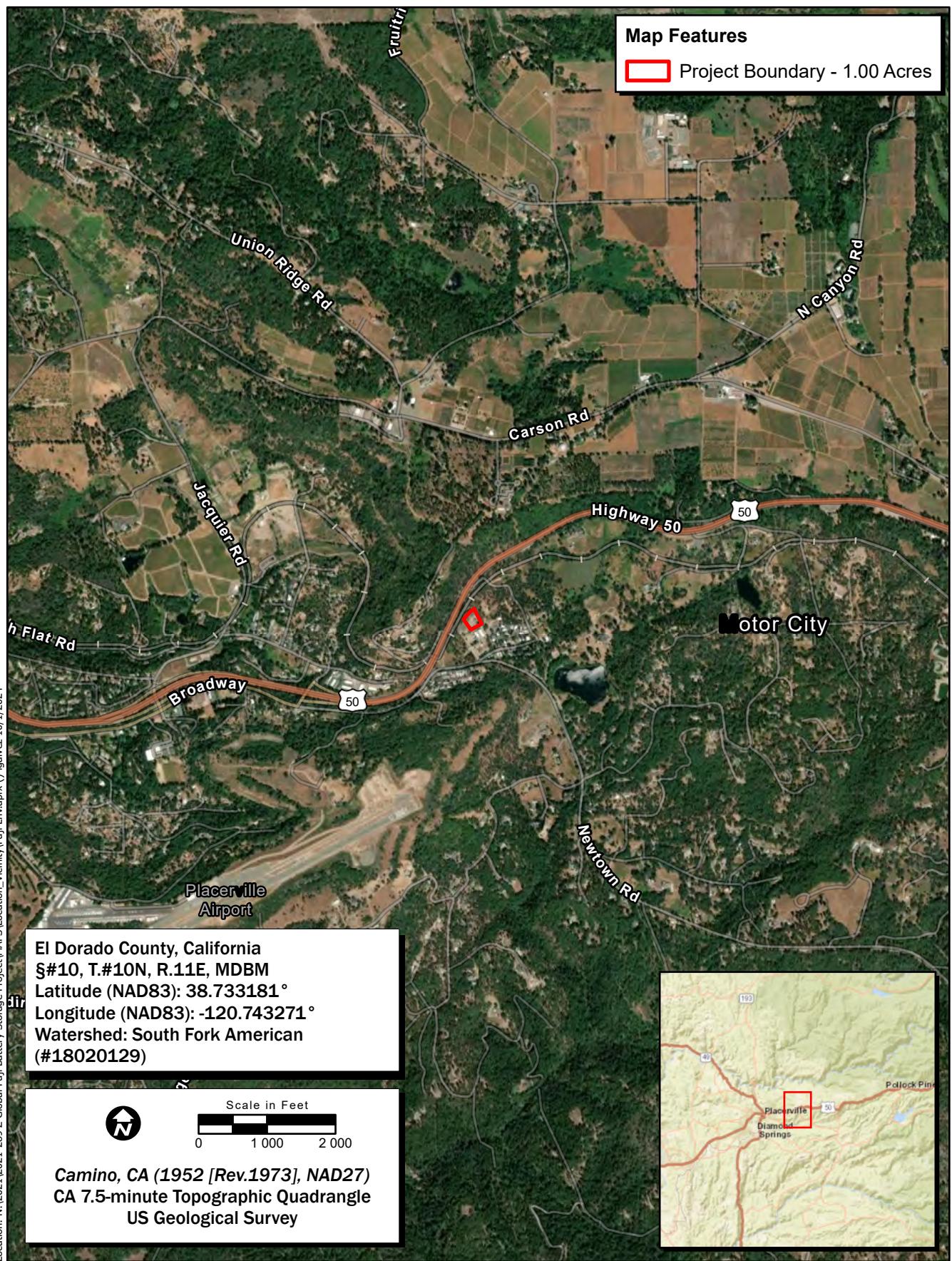


Figure 1. Project Location and Vicinity

Fiji Location 20241001 Z Global Fuji Battery Storage Project
CUP22-0011/Fiji Battery Storage
Exhibit I: Visual Impact Report

Project: Fuji Battery Storage
Applicant: Apex Energy Solutions C
APN:048-280-030-000 E Dorado County
Address: 3073 Ne to n Rd Placer ille CA 95667
Zoning: General Commercial GC
and Use: Industrial

F U I BA ER PR EC

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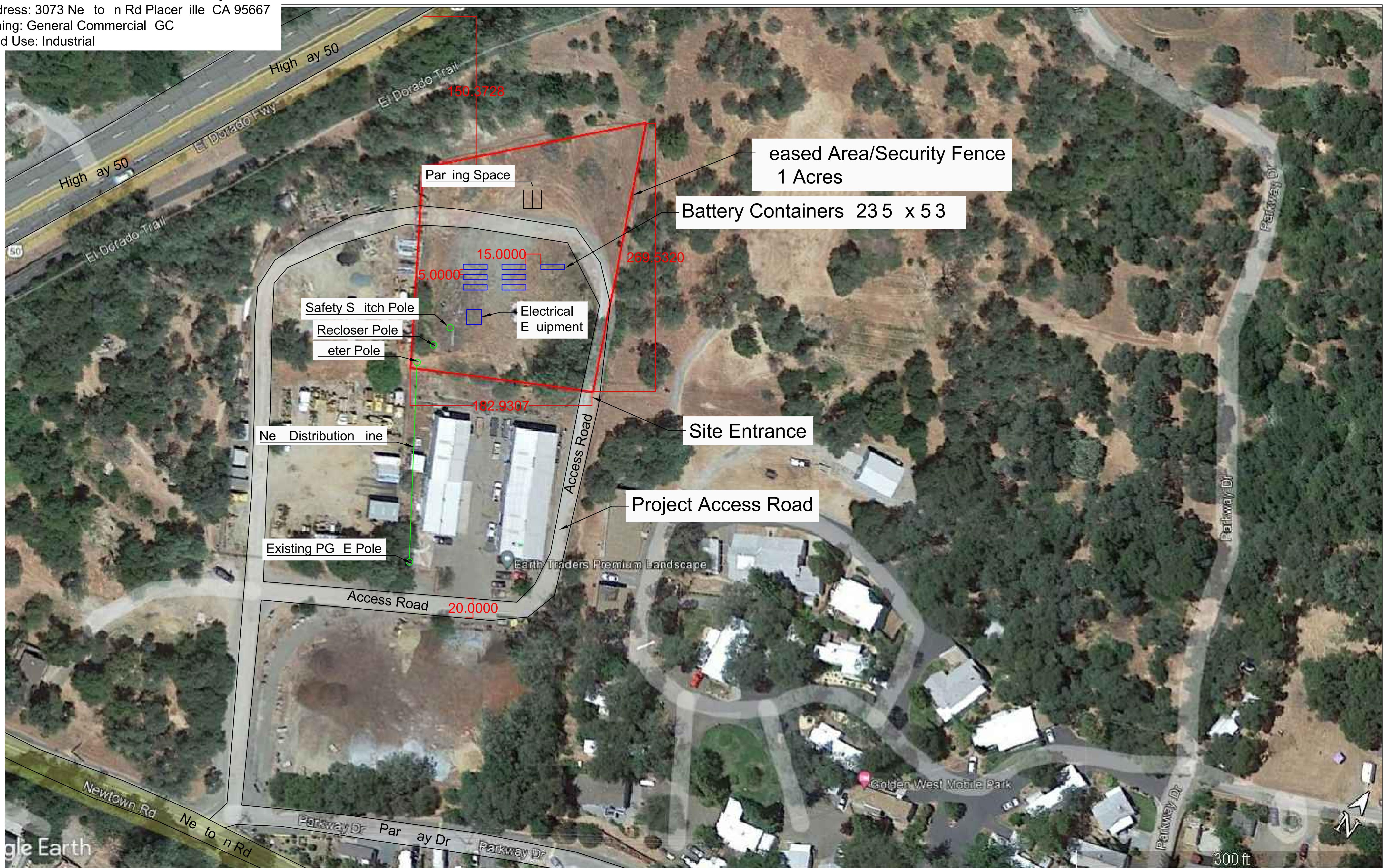


Figure 2: Site layout

604 SUTTER ST, STE 250
FOLSOM, CA 95630
Phone : 916.985.9461
Fax: 916.985.9467

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DA E:		
	REV No.	1

2.3 Description of Area of Visual Effect

As described above the project site is in a heavily developed area that is currently being used for industrial purposes. The site sits on a slope with Highway 50 north and upslope and Nelson Road south and downstream from the project area. Typically, the response to a project is discussed in the form of view points. These view points are representations of public views of the project from locations on public land or public roads. However, the proposed project area is located behind a landscape material storage Earth movers and is not visible from most public vantage points. The only areas that the project may be visible from are Nelson Road at the Earth movers driveway, Highway 50, a short portion of the El Dorado rail and Golden West mobile Home Park. See Figure 3: View Locations. These four locations are discussed below.

Highway 50 - From Highway 50 the thick tree and vegetation cover in the foreground almost completely blocks any views of the project site. Typical speeds along this segment of Highway 50 are in excess of 55 miles per hour only allowing vehicle occupants approximately 1-2 seconds of viewing. When combined with the substantial vegetation screening between the Highway and the project site it was determined that travelers along this stretch of the freeway would not be able to safely view the proposed project. No photo of this location was provided due to safety concerns along the roadway.

El Dorado rail - Recreational users along the El Dorado rail may have obstructed views of the project site. Views 1A and 1B below show the view from the El Dorado rail portion that is directly behind the project site and adjacent to US 50. The area that the project site is visible from the trail is approximately 120 feet long and is partially obstructed by trees and vegetation. As shown below in View 1A and 1B the view has native vegetation and trees in the foreground, the highly disturbed project area in the middle ground, and tree cover and vegetation in the background.

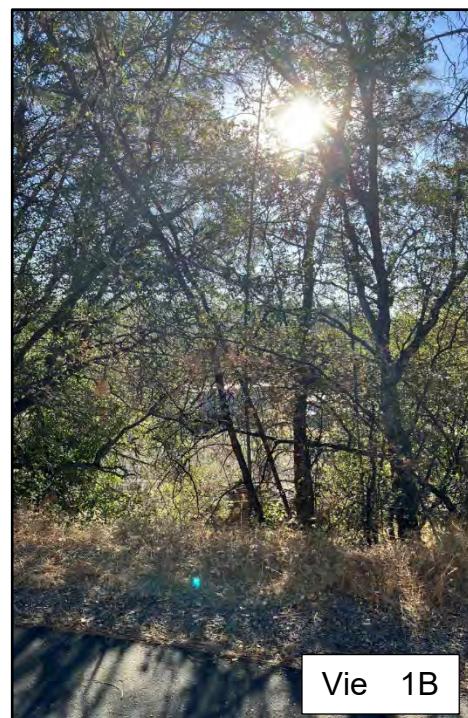
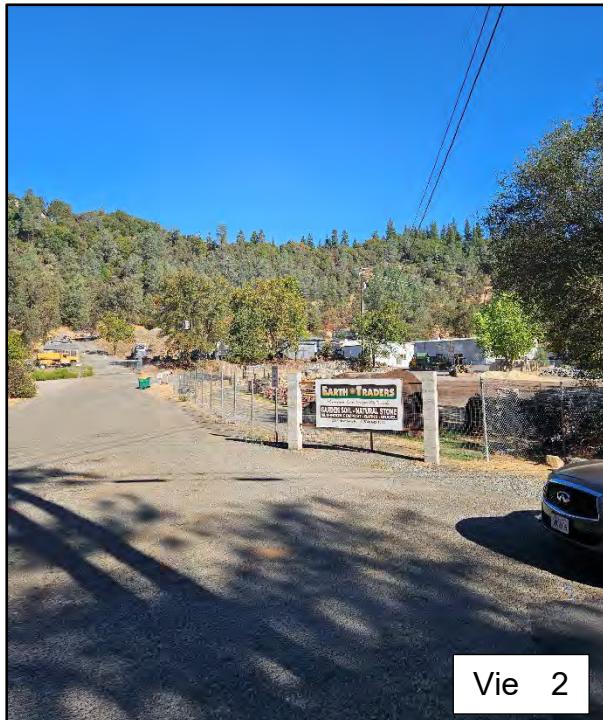




Figure 3. View Locations

The portion of the project site that is visible is industrial in nature with a gravel lot, metal storage/shipping containers, semi-trucks, heavy equipment, and a warehouse.

3073 Newton Road - The project site is proposed for the north-eastern portion of this location behind the existing business. From this location the project will not be visible due to the large mature trees and the two warehouse buildings located in the middle ground of the site. Views to the east and west of View 2 location are completely blocked by existing trees and topography.



View 2



View 3

Golden West Mobile Home Park - The Golden West Mobile Home Park is located to the east of the Earth Traders property. Due to trees planted along the eastern portion of the project site, views from the mobile home park are obstructed. The only residence that could have a view to the project site are those that are located in the back part of the mobile home park. Specifically, there is one residence that looks directly out towards the project site, however, as shown above in View 3, trees along the property line almost completely obstruct views to the project site.

3 Inventory Phase

3.1 Description of Landscape Visual Character and Quality

The Visual Impact Assessment Handbook describes landscape visual character as character that is created by the way the physical features of the landscape come together and can be defined as a distinct recognizable and consistent pattern of elements in the landscape that makes one landscape different from another. Although landscape character is also about experience and sense of place, it is not about opinions or judgement on whether one landscape is considered better or worse than

another. As shown in Figure 2 the project site has been significantly altered from the natural conditions and physical features of the landscape are no longer present or cohesive with the surrounding areas that could form a landscape pattern. Large areas have been cleared of vegetation and graded to create flat gravel lots for house pads and parking areas.

The Visual Impact Assessment Handbook describes landscape quality as the overall aesthetic impression of a site or landscape. Here visible most uses of the project site are obstructed or screened by trees or existing commercial site uses. Given the highly disturbed nature of the project site and intrusive features of the existing commercial uses the visual quality of the project site is considered low in comparison to the visual quality in nearby areas.

4 Analysis Phase

4.1 Evaluation of Visual Impact

The proposed project is not located within a scenic vista or is not visible from a designated scenic highway. The project is located on a site that is currently being used as a landscape material stock yard and will be consistent with the features already associated with that business and corresponding facilities. As discussed in Section 2.3 uses of the project site are limited due to the surrounding vegetation, topography and existing structures. The project will be located within an area that is currently being used as a gravel parking lot for commercial trucks and will not involve damage or removal of scenic resources including but not limited to trees, rock outcroppings and historic buildings. Additionally the project does not include lighting and will not create a new source of light or glare for the site. Additionally the project consists of features that will be in use for approximately 30 years after which will be decommissioned and the land will be returned to the natural state.

Overall in comparison to existing uses of the project site the proposed project is not expected to change the site's visual quality or characteristics. With existing screening, vegetation, topography and current site uses already limiting uses of the project site the perceived visual change caused by project features will be low.

5 Mitigation Phase (Environmental Commitments)

5.1 Recommendations for Environmental Commitment Measures

Environmental commitments have been proposed to lessen the visual impact of the project which may also help generate public acceptance of a project.

The following environmental commitments can avoid or minimize negative visual effects and/or improve aesthetics:

To further reduce visibility of the project infrastructure all new battery storage containers shall be painted in earth tones using non-reflective paint.

Appendix A: Scoping Questionnaire



andscape Architecture
Scoping Questionnaire
to Determine
Visual Impact Assessment

August 2023

Introduction

This questionnaire assists the qualified visual impact assessment VIA preparer i.e. California licensed Landscape Architect in determining whether a VIA report is needed in estimating the potential visual impacts of a proposed project on the environment and in understanding the degree and breadth of the possible visual impact issues. The goal is to develop VIA documentation that is appropriate to the scale of the project and is thorough, concise and defensible.

Enter basic information about the project and its visual context, visual resource regulatory context and the expected visual change and sensitivity in the Baseline Information Form and then consider each of the 12 questions below. The resulting score will serve as a guide to help determine the appropriate level of VIA documentation for the project. For some projects with no or minimal visual impact this questionnaire is all that is necessary. Both capital and maintenance projects should be reviewed. Select the response that most closely applies to the proposed project. The score is automatically computed at the bottom of the questionnaire. The total score should be matched to one of the four groups of scores at the end of the questionnaire that include recommended levels of VIA documentation i.e. this completed questionnaire, VIA memorandum, standard VIA report and advanced VIA report and reference to associated annotated outlines for these documents.

Use the scoring system as a preliminary guide rather than a substitute for professional analysis on the part of the preparer. Although the total score may recommend a lower level of VIA document circumstances associated with any one of the 12 questions may indicate the need to elevate the VIA to a greater level of detail. For projects on the State Highway System the District Landscape Architect should be consulted when scoping the VIA level and provide concurrence on the findings of this questionnaire.

Preparer Qualifications

The Standard Environmental Reference Volume I: Chapter 27-Visual Aesthetics
Reference website link lists preparer qualifications for conducting the visual impact assessment process:

Scenic Resource Evaluations and VIAs are performed under the direction of licensed Landscape Architects. Landscape Architects receive formal training in the area of visual resource management with a curriculum that emphasizes environmental design, human factors and context sensitive solutions. When recommending specific visual mitigation measures, Landscape Architects can appropriately weigh the benefits of these different measures and consider construction feasibility and maintainability.

This questionnaire shall be prepared by or under the direct supervision of a California licensed Landscape Architect. It shall be signed and stamped by that Landscape

Architect and written concurrence shall be provided by the District Landscape Architect for projects on State Highway System.

Project and Visual Context Baseline Information

Project and visual context baseline information is gathered early in the Establishment Phase of the VIA process to identify key information and issues applicable to the preparation of the VIA Scoping questionnaire. Should the baseline information change in the course of the project the questionnaire should be updated accordingly.

Gathering of the baseline information may be accomplished through desktop research, field reconnaissance coordination with the Caltrans environmental and project development teams and consultation with key stakeholders. The Caltrans VIA Handbook [website link](#) includes further information about the Establishment Phase.

Complete the following Baseline Information Form to document the baseline project and visual resource information that was available at the time of preparation of the questionnaire:

Project and Visual Context Baseline Information Form

Project Name:	Fuji Battery Storage Facility
EA or EFIS Number	N/A
Project Location (Dist-Co-Rte-PM):	3073 Ne ton Road Placer ille California
Questionnaire Preparer Name and CA LA License Number:	Amberly organ N/A
District Landscape Architect (DLA) Providing Concurrence, CA LA Lic. #:	N/A
Visual Features of Project and its Alternative(s).	<p>The proposed project is not located within a scenic vista or is not visible from a designated scenic highway. The project is located on a site that is currently being used as a landscape material stock yard and will be consistent with the features already associated with that business and corresponding facilities. As discussed in Section 2.3, views of the project site are limited due to the surrounding vegetation, topography, and existing structures. The project will be located within an area that is currently being used as a gravel parking lot for commercial trucks and will not involve damage or removal of scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings. Additionally, the project does not include lighting and will not create a new source of light or glare for the site. Additionally, the project consists of features that will be in use for approximately 30 years after which will be decommissioned and the land will be returned to the natural state.</p>
Additional Visual Context Remarks:	

Regulatory Framework

Potential Agencies that may have to be Involved:	<input type="checkbox"/> Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Local <input type="checkbox"/> Tribal <input type="checkbox"/> Other <small>Notes: Not for Caltrans or City use only</small>
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Visual Change and Sensitivity

Landscape Observations:	<input type="checkbox"/> Water <input type="checkbox"/> Visually dominant landforms <input checked="" type="checkbox"/> Natural vegetation <input type="checkbox"/> Visually Appealing Structures <input type="checkbox"/> Other features of interest Notes: Site currently being used for landscape material stock yard
Impact of Project on Natural, Cultural, and Existing Project Environments:	<input type="checkbox"/> Highly compatible <input type="checkbox"/> Moderately compatible <input type="checkbox"/> Not compatible <input checked="" type="checkbox"/> Other Notes: natural features are not highly present on site due to current use
Landscape Context and Development Patterns:	<input type="checkbox"/> Natural/Undeveloped <input type="checkbox"/> Rural <input type="checkbox"/> Suburban <input type="checkbox"/> Urban Notes:
Scenic, Visual and Historic Resource(s) within the Area of Visual Effect:	<input type="checkbox"/> Officially designated State Scenic Highway <input type="checkbox"/> Eligible Scenic Highway <input type="checkbox"/> Visual resources <input type="checkbox"/> Federally or other wise designated historic scenic resource Notes: None
Expected Agency Involvement:	Local involvement
Expected Public Feedback:	<input type="checkbox"/> Scenic resources identified as important <input checked="" type="checkbox"/> Not important <input type="checkbox"/> No public feedback Notes:

□

Regulatory Context

1. Does the project's aesthetic approach appear to be consistent with applicable local ordinances, regulations, policies or standards

Although the State is not required to comply with regional and local planning ordinances and other regulations, these documents are critical in understanding the importance that communities place on visual resources. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department.

Select a Response Score

- o Consistency 4 Points 2
- Moderate Consistency 3 Points
- High Consistency 2 Points
- Not Applicable 1 Point

2. Will permits be required by outside regulatory agencies i.e. federal, state or local

Permit requirements can have an unintended consequence on the visual environment. Anticipated permits as well as specific permit requirements may be determined by talking with the project Environmental Planner and Project Engineer. Note: coordinate with the Caltrans representative responsible for obtaining the permit prior to communicating directly with any permitting agency.

Select a Response Score

- Yes both federal and state or multiple permits required 4 2 Points
- Yes either federal or state or federal and local or state and local 3 Points
- Yes local or multiple local only 2 Points
- No 1 Point

Visual Change

3. Will the project character be compatible with the visual character of the existing landscape

Consider the types of adverse changes to the scenic integrity of the landscape caused by the project. Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community

Select a Response Score

- No Compatibility 4 Points 2
- Moderate Compatibility 3 Points
- Moderate Compatibility 2 Points
- High Compatibility 1 Point

4. Will the project contrast adversely with the memorability, vividness, natural harmony and/or cultural order, unity of the existing landscape

Evaluate the scale and extent of the project features compared to the scale of the visual elements within the surroundings. Is the project likely to change the appearance in a way that is contrasting with the line, color, form and texture of the existing landscape visual character

Select a Response Score

- High Adverse Contrast 4 Points 1
- Moderate Adverse Contrast 3 Points
- Moderate Adverse Contrast 2 Points
- No Contrast 1 Point

5. Will the project when viewed together with other past or foreseeable projects result in a cumulative adverse change in the visual quality or character of the existing landscape

Identify any projects in the area both Caltrans and others that have been recently constructed and/or are reasonably foreseeable and/or currently planned for future construction. The end of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the existing public's awareness of cumulative change.

Select a Response Score

- Project may result in substantial adverse cumulative visual impacts 4 Points 1
- Project will result in noticeable adverse cumulative visual impacts 3 Points
- Project is unlikely to result in noticeable adverse cumulative visual impacts 2 Points
- Project will not result in cumulative impacts 1 Point

6. Will the project produce a new source of substantial light or glare which will adversely affect daytime or nighttime views within the area

Identify new sources of lighting and glare and how day- and nighttime visual conditions may change.

Select a Response Score

- High potential for adverse effects 4 Points 1
- Moderate potential for adverse effects 3 Points
- Low potential for adverse effects 2 Points
- No potential for adverse effects 1 Point

Visual Sensitivity

7. What is the potential that the project proposal will be controversial within the community

Assess the level of public concern by talking with local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.

Select a Response Score

- High Potential that project will be controversial 4 Points 2
- Moderate Potential that project will be controversial 3 Points
- Low Potential that project will be controversial 2 Points
- No Potential that project will be controversial 1 Point

8. How sensitive are potential receiver groups likely to be regarding visible changes proposed by the project

Consider among other factors how the receiver groups represent the number of receivers within the group, probable receiver expectations, activities, including duration and orientation. The expected receiver sensitivity level may be scoped by applying professional judgment and by soliciting information from other Caltrans staff, local agencies and community stakeholders familiar with the affected community's sentiments and demonstrated concerns.

Select a Response Score

- High Sensitivity 4 Points 2
- Moderate Sensitivity 3 Points
- Low Sensitivity 2 Points
- No Sensitivity 1 Point

9. What level of local concern is there for the types of specific project features e.g. bridge structures, large excavations, sound barriers or median planting removal and construction impacts that are proposed?

Certain project improvements can be of special interest to local citizens causing a heightened level of public concern and requiring a more focused visual analysis.

Select a Response Score

- High level of Concern 4 Points 2
- Moderate level of Concern 3 Points
- Low level of Concern 2 Points
- No Concern 1 Point

10. Are there federally or state or locally designated scenic or historic resources or other visual resources within the project area of visual effect i.e. viewshed?

For example: protected viewsheds, visually sensitive public use areas, national historic/scenic trails, historic sites or structures, scenic designated view points, wild and scenic rivers, state scenic highways, or federal scenic byways, or potential visual resources such as stands of trees, rock outcroppings, etc.

Select a Response Score

- Multiple designated scenic resources 4 Points 1
- Multiple potential visual resources or a single designated scenic resource 3 Points
- One potential visual resource 2 Points
- No identifiable scenic resources 1 Point

Design Process Considerations

11. Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts

Consider the proposed project features possible visual impacts and probable environmental commitments.

Select a Response Score

- High Benefit 4 Points
- Moderate Benefit 3 Points
- Low Benefit 2 Points
- No Benefit 1 Point

1

12. Will the project likely require design changes to reduce the extent of visual resource impacts

Consider design changes and enhancements such as realignment, additional alignment alternatives, vertical profile adjustments, extensive landscaping, architectural treatment, color and texture treatments and/or lighting of aboveground structures.

Select a Response Score

- Extensive changes and/or redesign 4 Points
- Some redesign or minimization measures 3 Points
- Minimal design changes 2 Points
- No design changes 1 Point

1

Highlight the number below and press FN F9 to calculate the final project score.

18

Project Score:

Store a copy of this completed questionnaire in the project file.
Attach a copy of this completed questionnaire to the VIA report.

Project Score

Select an outline Based on Project Score

The total score will indicate the recommended VIA level for the project. In addition to considering circumstances relating to any one of the 12 questions that could justify selecting the VIA level, also consider any other project factors that could influence level selection.

Score 12-18 VIA questionnaire

No visual resource related regulatory requirements. No or negligible visual changes to the environment are proposed. None or minimal public concern has been identified.

This Questionnaire with rationale for selected responses to questions in the available spaces after each question along with a statement of no visual resource impact is appropriate and provides a sufficient rationale why a technical study is not required.

Score 19-28 VIA Memorandum

Very limited visual resource related regulatory requirements. Minor visual changes to the environment are proposed. Minor public concern from the public may be expected. A VIA Memorandum is appropriate in this case. The VIA memorandum should briefly describe project features impacts and any environmental commitment measures.

Visual simulations are not necessary. Go to the Directions for using and accessing VIA memorandum Annotated outline [website link](#).

Score 29-38 Standard VIA Report

Several visual resource related regulatory requirements. Moderately noticeable visual changes to the environment are proposed. Moderate public concern may be expected. A fully developed Standard VIA Report is appropriate. The report should describe in detail the project's visual attributes, its visual impact and potential environmental commitment measures. Visual simulations are recommended. This report will likely receive public review. Go to the Directions for using and accessing the Standard VIA Annotated outline [website link](#).

Score 39-48 Advanced VIA Report

Extensive visual resource related regulatory requirements and clearly noticeable changes to the environment are proposed. Moderate to high public concern may be expected. A fully developed Advanced VIA Report is appropriate. The report should describe in detail and numerically score the project's visual change and sensitivity, its visual impact and any environmental commitments proposed. Visual simulations are required. It is appropriate to alert the Project Development team to the potential for highly adverse impacts and to consider project alternatives to avoid those impacts. This

technical study will receive close public review. Go to the Directions for using and accessing the Advanced VIA Annotated outline website link.